

Application No.: 10/734,948

Docket No.: JCLA12519

REMARKS**Present Status of the Application**

The Office Action rejected claims 1-8. Specifically, the Office Action rejected claim 7 under 35 U.S.C. 1112, second paragraph. The Office Action rejected claims 1-3 under 35 U.S.C. 102(b) as being anticipated by Richard et al. (U. S. Patent 5,736,063; hereinafter Richard). The Office Action rejected claims 1-4 under 35 U.S.C. 102(b) as being anticipated by Powell et al. (U. S. Patent 6,117,356; hereinafter Powell). The Office Action rejected claims 4, 7/4, and 8/7/4 under 35 U.S.C. 103(a) as being unpatentable over Rademacher et al. (U. S. Patent 5,092,138) in view of Richard. The Office Action rejected claim 5 under 35 U.S.C. 103(a) as being unpatentable over Karl (U. S. Patent 6,178,761) in view of Powell. The Office Action rejected claims 7/5 and 8/7/5 under 35 U.S.C. 103(a) as being unpatentable over Karl in view of Powell. The Office Action rejected claim 6 under 35 U.S.C. 103(a) as being unpatentable over Karl in view of Powell and further in view of VanderWoude et al. (U. S. Patent 6,631,621; hereinafter VanderWoude). The Office Action rejected claims 7/6 and 8/7/6 under 35 U.S.C. 103(a) as being unpatentable over Karl in view of Powell and VanderWoude, and further in view of Rademacher. Applicants have amended claims 1, 3, and 7. Applicants have also amended specification and drawings. Claims 1-8 remain pending in the present application, and reconsideration of those claims is respectfully requested.

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Discussion of Claim Rejections under 35 USC 102

The Office Action rejected claims 1-3 under 35 U.S.C. 102(b) as being anticipated by Richard. The Office Action rejected claims 1-4 under 35 U.S.C. 102(b) as being anticipated by Powell. Applicants have amended 1. Applicants respectfully traverse the rejection for at least the reasons set forth below.

The present invention as recited in newly amended independent claim 1, the temperature glide produces a first temperature range between a beginning of an evaporation and an intermediate temperature for use as a refrigeration area, and a second temperature range from the intermediate temperature to a temperature at an ending of the evaporation for use as a cold storage area. In this manner, the performance can be improved. The "temperature glide" is actually not inherent for the specific arrangement as recited in independent claim 1.

As for example described in [0019] of the specification, the invention utilizes the specific temperature glide to have the refrigeration area and the cold storage area for a refrigerator. Basically, the range of temperature glide between the beginning of the evaporation and the intermediate temperature is used for the refrigeration area. The temperature range from the intermediate temperature to the temperature at the ending of the evaporation is used for the cold storage area. As a result, the temperature difference during the phase transition can be effectively utilized, and the cycle property can be improved.

In re Richard, the example 27 in Table 2 discloses the ingredient including CO₂.

In re Powell, CO₂ has also been included (col. 2, line 30).

However, the prior art references failed to specifically disclose the arrangement of the

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"temperature glide" to have the cold storage area and the refrigeration area, as recited in independent claim 1. With at least the same reasons, claims 2-4 carry the same features not disclosed by the prior art.

Discussion of Claim Rejections under 35 USC 103

The Office Action rejected claims 4, 7/4, and 8/7/4 under 35 U.S.C. 103(a) as being unpatentable over Rademacher in view of Richard. The Office Action rejected claim 5 under 35 U.S.C. 103(a) as being unpatentable over Karl in view of Powell. The Office Action rejected claims 7/5 and 8/7/5 under 35 U.S.C. 103(a) as being unpatentable over Karl in view of Powell. The Office Action rejected claim 6 under 35 U.S.C. 103(a) as being unpatentable over Karl in view of Powell and further in view of VanderWoude et al.. The Office Action rejected claims 7/6 and 8/7/6 under 35 U.S.C. 103(a) as being unpatentable over Karl in view of Powell and VanderWoude, and further in view of Rademacher. Applicants respectfully traverse the rejection for at least the reason set forth below.

Dependent claims 4-8 have use the non-azeotropic refrigerant mixture as recited in claim 1. With at least the same foregoing reasons, the temperature glide is particularly used to produce the cold storage area and the refrigeration area.

Richard and Powell failed to disclose the features discussed above as recited in claim 1.

Karl, VanderWoude, Rademacher each disclose the refrigerating cycle path, but still fail to disclose the features discussed above as recited in claim 1.

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For at least the foregoing reasons, Applicant respectfully submits that independent claim 1 patentably defines over the prior art references, and should be allowed. For at least the same reasons, dependent claims 2-8 patentably define over the prior art references as well.

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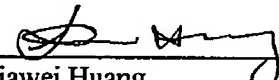
CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 1-8 of the invention patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,
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